ORDER NO. HAD8605495C8

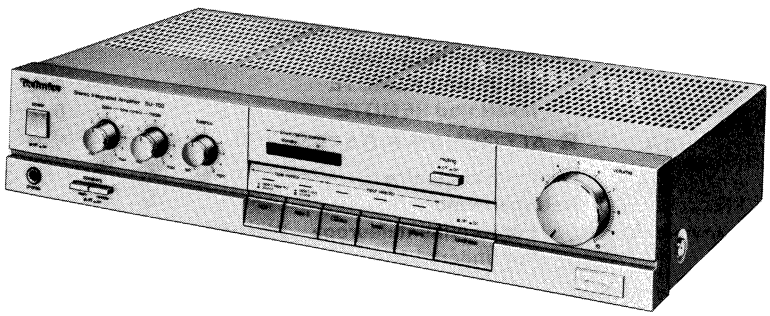
# Service Manual

Stereo Integrated Amplifier

Amplifier

# SU-700

SU-700



**Color**

(K) · · · · Black Type
(S) · · · · Silver Type

| Color | Area |
|---|---|
| (K)(S) | [E] ..... Continental Europe |
| (K)(S) | [EH] .... Holland |
| (K)(S) | [EB] .... Belgium |
| (K)(S) | [EF] .... France |
| (K)(S) | [EK] .... United Kingdom |
| (K)(S) | [EG] ... F.R. Germany |
| (K)(S) | [Ei] ..... Italy |
| (K)(S) | [XL] .... Australia |
| (K)(S) | [XA] .... Asia, Latin America, Middle Near East, Africa & Oceania |

## SPECIFICATIONS

### (DIN 45 500)

### ■ AMPLIFIER SECTION

| | |
|---|---|
| **40 Hz~20 kHz continuous power output** | |
| **both channels driven** | 2 × 60W (8Ω) |
| **1 kHz continuous power output** | |
| **both channels driven** | 2 × 70W (8Ω) |
| **Total harmonic distortion** | |
| **rated power at 40 Hz~20 kHz** | 0.04% (8Ω) |
| **half power at 1 kHz** | 0.03% (8Ω) |
| **Intermodulation distortion** | |
| **rated power at 60 Hz: 7 kHz=4:1, SMPTE, 8Ω** | 0.05% |
| **Power bandwidth** | |
| **both channels driven, −3 dB** | 10 Hz~30 kHz (8Ω, 0.04%) |
| **Damping factor** | 50 (8Ω) |
| **Input sensitivity and impedance** | |
| **PHONO** | 2.5 mV/4.7kΩ |
| **TUNER, CD/AUX** | 150 mV/22kΩ |
| **TAPE 1, 2/EXT** | 150 mV/22kΩ |
| **PHONO maximum input voltage (1 kHz, RMS)** | 150 mV |
| **S/N** | |
| **rated power (8Ω)** | |
| **PHONO** | 71 dB (IHF, A: 72 dB) |
| **TUNER, CD/AUX, TAPE 1,2/EXT** | 90 dB (IHF, A: 98 dB) |
| **Frequency response** | |
| **PHONO** | RIAA standard curve ±0.8 dB (30 Hz~15 kHz) |
| **TUNER, CD/AUX, TAPE 1,2/EXT** | 5 Hz~90 kHz (−3 dB) |
| **Tone controls** | |
| **BASS** | 50 Hz, +10 dB~−10 dB |
| **TREBLE** | 20 kHz, +10 dB~−10 dB |
| **Loudness control (volume at −30 dB)** | 50 Hz, +9 dB |
| **Output voltage and impedance** | |
| **REC OUT** | 150 mV |
| **Channel balance, CD/AUX 250 Hz~6,300 Hz** | ±1 dB |
| **Channel separation, AUX 1 kHz** | 45 dB |
| **Headphones output level and impedance** | 560 mV/330Ω |
| **Load impedance** | |
| **MAIN or REMOTE** | 4Ω~16Ω |
| **MAIN and REMOTE** | 8Ω~16Ω |

### ■ GENERAL

| | |
|---|---|
| **Power consumption** | 360W |
| **Power supply** | |
| **For Australia and United Kingdom** | AC 50 Hz/60 Hz, 240V |
| **For continental Europe** | AC 50 Hz/60 Hz, 220V |
| **For others** | AC 50 Hz/60 Hz, 110V/127V/220V/240V |
| **Dimensions (W×H×D)** | 430 × 86 × 240 mm (16-15/16" × 3-3/8" × 9-7/16") |
| **Weight** | 5.3 kg (11.7 lb.) |

**Note:**
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Specifications are subject to change without notice for further improvement.

Technics

**Matsushita Electric Trading Co., Ltd.**
P.O. Box 288, Central Osaka Japan

# ■ TECHNISCHE DATEN

## (DIN 45 500)

### ■ VERSTÄRKERTEIL

**Dauerton-Ausgangsleistung bei 40 Hz ~ 20 kHz**
**beide Kanäle ausgesteuert** 2 × 60W (8 Ω)
**Dauerton-Ausgangsleistung bei 1 kHz**
**beide Kanäle ausgesteuert** 2 × 70W (8 Ω)
**Gesamtklirrfaktor**
**Nennleistung bei 40 Hz ~ 20 kHz** 0,04% (8 Ω)
**halbe Nennleistung bei 1 kHz** 0,03% (8 Ω)
**Intermodulationsfaktor**
**Nennleistung bei 60 Hz: 7 kHz = 4:1, nach SMPTE, 8 Ω** 0,05%
**Leistungsbandbreite**
**beide Kanäle ausgesteuert bei −3 dB** 10 Hz ~ 30 kHz (8 Ω, 0,04%)
**Dämpfungsfaktor** 50 (8 Ω)
**Eingangsempfindlichkeit und -impedanz**
**Phono** 2,5 mV/4,7 kΩ
**Tuner, CD/Aux** 150 mV/22 kΩ
**Tape 1/2/EXT** 150 mV/22 kΩ
**Maximale TA-Eingangsspannung (1 kHz, eff.)** 150 mV
**Geräuschspannungsabstand**
**Nennleistung (8 Ω)**
**Phono** 71 dB (nach IHF, A: 72 dB)
**Tuner, CD/Aux, Tape 1, 2/EXT** 90 dB (nach IHF, A: 98 dB)
**Frequenzgang**
**Phono** RIAA-Standardkurve, ±0,8 dB (30 Hz ~ 15 kHz)
**Tuner, CD/Aux, Tape 1, 2/EXT** 5 Hz ~ 90 kHz (−3 dB)
**Klangregler**
**Baßregler (BASS)** 50 Hz, +10 dB ~ −10 dB
**Höhenregler (TREBLE)** 20 kHz, +10 dB ~ −10 dB
**Gehörrichtige Lautstärkekorrektur (Loudness)**
**(bei −30 dB Ausgangsleistung)** 50 Hz, +9 dB
**Ausgangsspannung und -impedanz**
**Aufnahmeausgang (REC OUT)** 150 mV
**Kanalabweichung (CD/Aux, 250 Hz ~ 6300 Hz)** ±1 dB
**Übersprechdämpfung (Aux, 1 kHz)** 45 dB
**Kopfhörerpegel und -impedanz** 560 mV/330 Ω
**Lautsprecherimpedanz**
**MAIN oder REMOTE** 4 Ω ~ 16 Ω
**MAIN und REMOTE** 8 Ω ~ 16 Ω

### ■ ALLGEMEINE DATEN

**Leistungsaufnahme** 360W
**Netzspannung**
**Für Kontinentaleuropa** Wechselstrom 50 Hz/60 Hz, 220V
**Für andere Länder** Wechselstrom 50 Hz/60 Hz, 110V/127V/220V/240V
**Abmessungen (B×H×T)** 430 × 86 × 240 mm
**Gewicht** 5,3 kg
**Bemerkung:**
Der Gesamtklirrfaktor wurde mit einem digitalen Rauschspektrometer (Anlage H.P. 3045) gemessen.

(Die technischen Daten können infolge von Verbesserungen ohne Ankündigung geändert werden.)

# ■ CARACTERISTIQUES

## (DIN 45 500)

### ■ SECTION AMPLIFICATEUR

**Puissance de sortie continue de 40 Hz~20 kHz, les deux canaux en circuit** 2 × 60W (8Ω)
**Puissance de sortie continue à 1 kHz les deux canaux en circuit** 2 × 70W (8Ω)
**Distorsion harmonique totale**
**à puissance nominale (40 Hz~20 kHz)** 0,04% (8Ω)
**à demi-puissance (1 kHz)** 0,03% (8Ω)
**Distorsion d'intermodulation**
**à puissance nominale à 60 Hz: 7 kHz=4:1, SMPTE, 8Ω** 0,05%
**Réponse de fréquences**
**les deux canaux en circuit, −3 dB** 10 Hz~30 kHz (8Ω, 0,04%)
**Coefficient d'amortissement** 50 (8Ω)
**Sensibilité et impédance d'entrée**
**PHONO** 2,5 mV/4,7kΩ
**SYNTONISATEUR, CD/AUX (TUNER, CD/AUX)** 150 mV/22kΩ
**BANDE 1, 2/EXT (TAPE 1, 2/EXT)** 150 mV/22kΩ
**PHONO (tension d'entrée maximum, 1 kHz RMS)** 150 mV
**Signal/Bruit**
**à puissance nominale (8Ω)**
**PHONO** 71 dB (IHF, A: 72 dB)
**SYNTONISATEUR, CD/AUX, BANDE 1, 2/EXT (TUNER, CD/AUX, TAPE 1, 2/EXT)** 90 dB (IHF, A: 98 dB)
**Réponse de fréquence**
**PHONO** Courbe nominale RIAA ±0,8 dB (30 Hz~15 kHz)
**SYNTONISATEUR, CD/AUX, BANDE 1, 2/EXT (TUNER, CD/AUX, TAPE 1, 2/EXT)** 5 Hz~90 kHz (−3 dB)
**Réglage de la tonalité**
**BASSES (BASS)** 50 Hz, +10 dB~−10 dB
**AIGUS (TREBLE)** 20 kHz, +10 dB~−10 dB
**Compensateur physiologique (volume à −30 dB)** 50 Hz, +9 dB
**Tension de sortie et impédance**
**SORTIE ENREGISTREMENT (REC OUT)** 150 mV
**Equilibrage des canaux, CD/AUX 250 Hz~6 300 Hz** ±1 dB
**Séparation des canaux, AUX 1 kHz** 45 dB
**Niveau de sortie des casques et impédance** 560 mV/330Ω
**Impédance de charge**
**PRINCIPALE ou AUXILIAIRE (MAIN or REMOTE)** 4Ω~16Ω
**PRINCIPALE et AUXILIAIRE (MAIN and REMOTE)** 8Ω~16Ω

### ■ DIVERS

**Consommation** 360W
**Alimentation**
**Pour l'Europe** CA 50 Hz/60 Hz, 220V
**Autres** CA 50 Hz/60 Hz, 110V/127V/220V/240V
**Dimensions (L×H×Pr)** 430 × 86 × 240 mm
**Poids** 5,3 kg

**Remarque:**
On mesure la distorsion harmonique totale au moyen d'un analyseur de spectre digital (Système H.P. 3045).

(Sujet à changement sans préavis)

# ■ ESPECIFICACIONES (DIN 45 500)

## ■ SECCION AMPLIFICADOR

**Potencia continua de 40 Hz~20 kHz**
**en ambos canales** 2 × 60W (8Ω)
**Potencia continua de 1 kHz**
**en ambos canales** 2 × 70W (8Ω)
**Distorsión armónica total**
**potencia de régimen a 40 Hz~20 kHz** 0,04% (8Ω)
**mitad de potencia a 1 kHz** 0,03% (8Ω)
**Distorsión por intermodulación**
**potencia de régimen a 60 Hz: 7 kHz=4:1, SMPTE, 8Ω** 0,05%
**Ancho de banda de potencia**
**con ambos canales, −3 dB** 10 Hz~30 kHz (8Ω, 0,04%)
**Factor de amortiguamiento** 50 (8Ω)
**Sensibilidad e impedancia de entrada**
**TOCADISC. (PHONO)** 2,5 mV/4,7kΩ
**SINTON., CD/AUX., GRAB. 1, 2/EXT (TUNER, CD/AUX, TAPE 1, 2/EXT)** 150 mV/22kΩ
**Voltaje máximo de entrada de PHONO (1 kHz, RMS)** 150 mV
**Relación de señal a ruido**
**potencia de régimen (8Ω)**
**TOCADISC. (PHONO)** 71 dB (IHF, A: 72 dB)
**SINTON., CD/AUX., GRAB. 1, 2/EXT (TUNER, CD/AUX, TAPE 1, 2/EXT)** 90 dB (IHF, A: 98 dB)
**Respuesta de frecuencia**
**TOCADISC. (PHONO)** curva RIAA estándar ±0,8 dB (30 Hz~15 kHz)
**SINTON., CD/AUX., GRAB. 1, 2/EXT (TUNER, CD/AUX, TAPE 1, 2/EXT)** 5 Hz~90 kHz (−3 dB)
**Controles de tono**
**BAJOS (BASS)** 50 Hz, +10 dB~−10 dB
**AGUDOS (TREBLE)** 20 kHz, +10 dB~−10 dB
**Control de sonoridad (volumen a −30 dB)** 50 Hz, +9 dB
**Voltaje e impedancia de salida**
**SAL. GRAB. (REC OUT)** 150 mV
**Equilibrio de canales, CD/AUX 250 Hz~6 300 Hz** ±1 dB
**Separación de canales, AUX 1 kHz** 45 dB
**Impedancia y nivel de salida de los auriculares** 560 mV/330Ω
**Impedancia de carga**
**MAIN o REMOTE** 4Ω~16Ω
**MAIN y REMOTE** 8Ω~16Ω

## ■ GENERAL

**Consumo de energía** 360W
**Alimentación de energía**
**Para Europa continental** CA 50 Hz/60 Hz, 220V
**Para otros paises** CA 50 Hz/60 Hz, 110V/127V/220V/240V
**Dimensiones (An.×Al.×Prof.)** 430 × 86 × 240 mm
**Peso** 5,3 kg

**Nota:**
La distorsión armónica total se mide con el analizador de espectro digital (sistema H.P. 3045).

(Estas especificationes estàn sujetas a cualquier cambio sin previo eviso.)

# ■ CONTENTS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# ■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is switched ON.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted" , or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.
If this occurs, follow the procedure outlined below:

1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

**Note:**
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

# ■ BEFORE REPAIR AND ADJUSTMENT

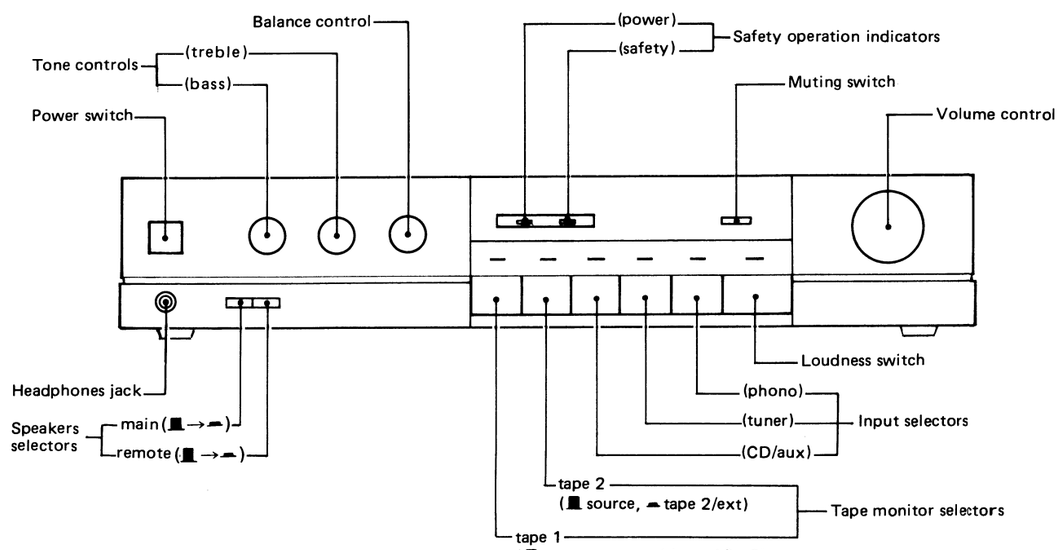
(1) Turn off the power supply. Using a 10Ω, 5W resistor, shortcircuit both ends of power supply capacitors (C901, C902, 6800μF) in order to discharge the voltage.

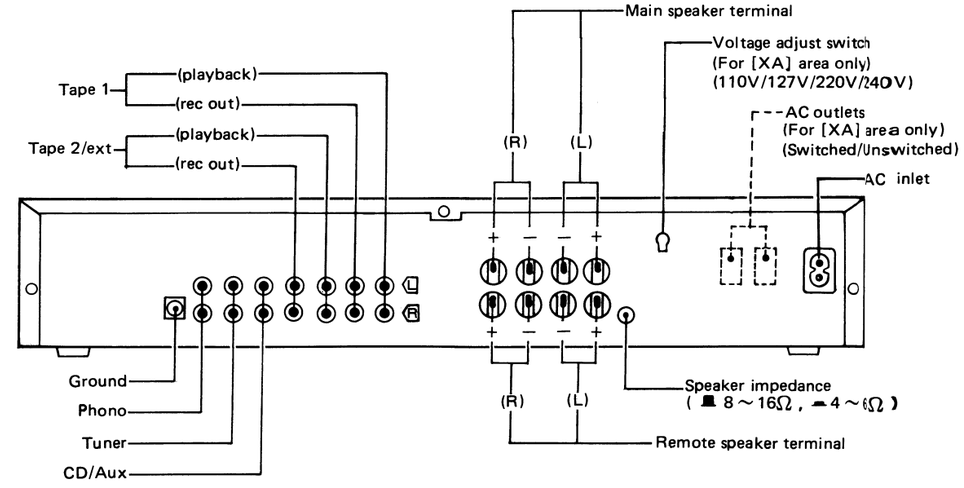
(2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50/60 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 110V/127V/220V/240V.

| Power supply voltage | | AC110V | AC127V | AC220V | AC240V |
|---|---|---|---|---|---|
| Consumed current | 50Hz | 230 ~ 410mA | 210 ~ 390mA | 100 ~ 220mA | 80 ~ 200mA |
| | 60Hz | 210 ~ 390mA | 190 ~ 370mA | 80 ~ 200mA | 70 ~ 190mA |



# ■ LOCATION OF CONTROLS




- The power supply for this unit varies depending upon the areas. Also, the parts used for power supply are different. So, refer to the circuit diagram and replacement parts list.

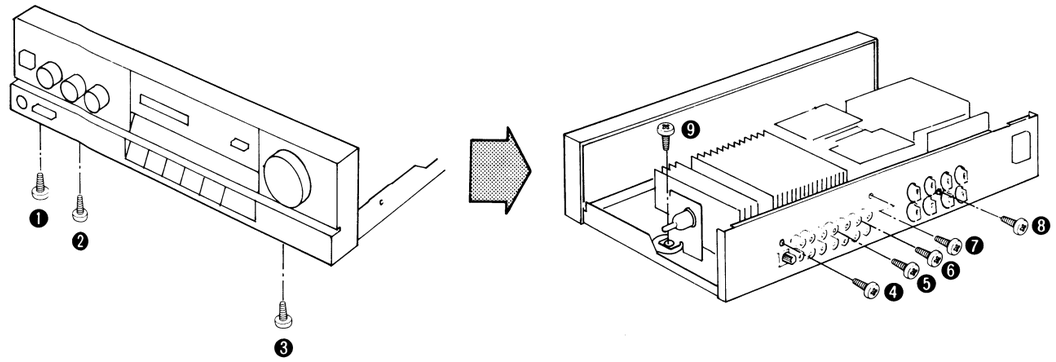
* [XA] area is provided with voltage selector and AC outlets.
* 240V (50/60Hz) for Australia and United Kingdom.
* 220V (50/60Hz) for Continental Europe.
* 110V/127V/220V/240V (50/60Hz) for other [XA] area.
* Phono input capacitance is about 150pF.

## ■ DISASSEMBLY INSTRUCTIONS

### Ref. No. 1 — How to remove the main P.C.B.

**Procedure 1**

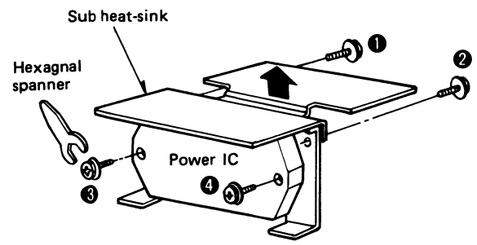
1. Remove the cabinet.
2. Remove the 3 screws ( ❶ ~ ❸ ).
3. Remove the 6 screws ( ❹ ~ ❾ ).




### Ref. No. 2 — How to remove the Power IC

**Procedure 1 →2**

1. Remove the 2 screws ( ❶ , ❷ ).
2. Remove the sub heat-sink.
3. Unsolder the power IC.
4. Remove the 4 screws ( ❸ , ❹ ).

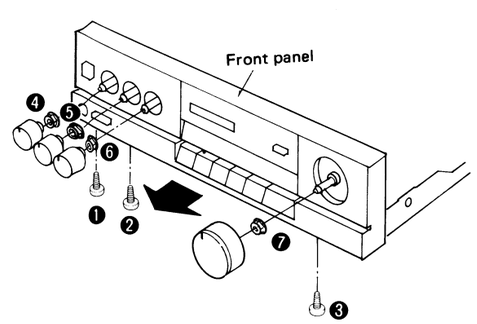


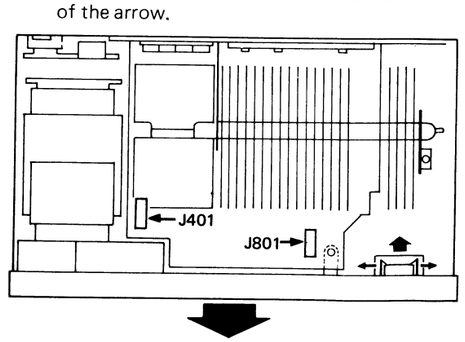

- When mounting the power IC, apply silicon thermal compound (SZZ0L15 or equivalent) to the rear of the power IC.

### Ref. No. 3 — How to remove the front panel

**Procedure 3**

1. Remove the cabinet.
2. Remove the 3 screws ( ❶ ~ ❸ ).
3. Remove the 4 nuts ( ❹ ~ ❼ ).
4. Remove the connector (J401, J801)
5. Remove the front panel in the direction of the arrow.

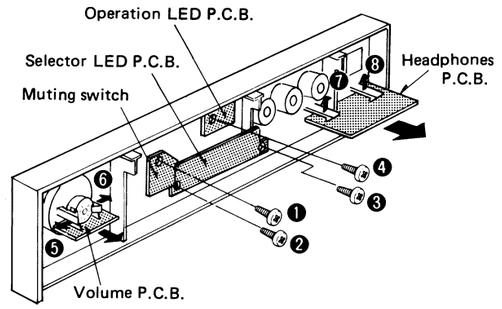




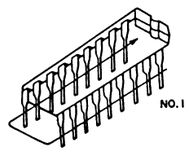
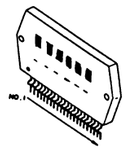
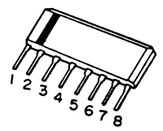
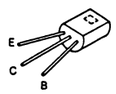
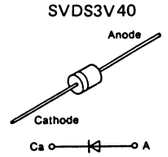
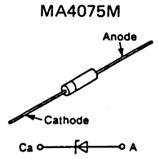
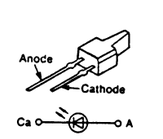
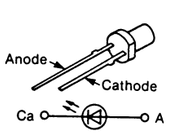

### Ref. No. 4 — How to remove the P.C.B.

**Procedure 3 →4**




1. Remove the 4 screws ( ❶ ~ ❹ )
2. Remove the muting switch, selector LED P.C.B. and operation LED P.C.B.
3. Remove the 4 tabs ( ❺ ~ ❽ )
4. Remove the volume P.C.B. and headphones P.C.B.

### • Terminal guide of transistors, diodes and IC's

| | | | |
|---|---|---|---|
| AN6552F 8pin<br>AN6558F 8pin | SVI3104 18pin | M5218L<br>M5220L | 2SA992 |
|  |  |  |  |
| MA165<br>1SR35200<br>SVDS3V40 | MA4130M<br>MA4068M<br>MA4075M | LN846RP<br>LN446YP | LN863RC<br>LN463YC |
|  |  |  |  |

# ■ RESISTORS & CAPACITORS

**Notes:**
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
4. The "Ⓢ" mark is service standard parts and may differ from production parts.
5. The unit of resistance is OHM (Ω). K = 1000Ω, M = 1000kΩ
6. The unit of capacitance is MICROFARAD (μF). P = $10^{-6}$μF

### Numbering System of Resistor

Example

| ERD | 25 | F | J | 101 |
|---|---|---|---|---|
| Type | Wattage | Shape | Tolerance | Value |

| Resistor Type | Wattage | Tolerance |
|---|---|---|
| ERD : Carbon<br>ERX : Metal film | 25 : 1/4W<br>S1 : 1/2W<br>S2 : 1/4W | J : ±5%<br>K : ±10% |

### Numbering System of Capacitor

Example

| ECKD | 1H | 103 | Z | F |
|---|---|---|---|---|
| Type | Voltage | Value | Tolerance | Peculiarity |

| ECEA | 50 | M | R47 | R |
|---|---|---|---|---|
| Type | Voltage | Peculiarity use | Value | Special use |

| Capacitor Type | Voltage | | Tolerance |
|---|---|---|---|
| | ECEA Type | Other | |
| ECEA : Electrolytic<br>ECCD : Ceramic<br>ECKD : Ceramic<br>ECQM : Polyester<br>ECFT : Semiconductor<br>ECET : Electrolytic | 0J : 6.3V<br>1C : 16V<br>1E : 25V<br>1H : 50V<br>42 : 42V | 1H : 50V DC | J : ±5%<br>K : ±10%<br>Z : +80%, −20%<br>P : +100%, −0% |

## • Resistor

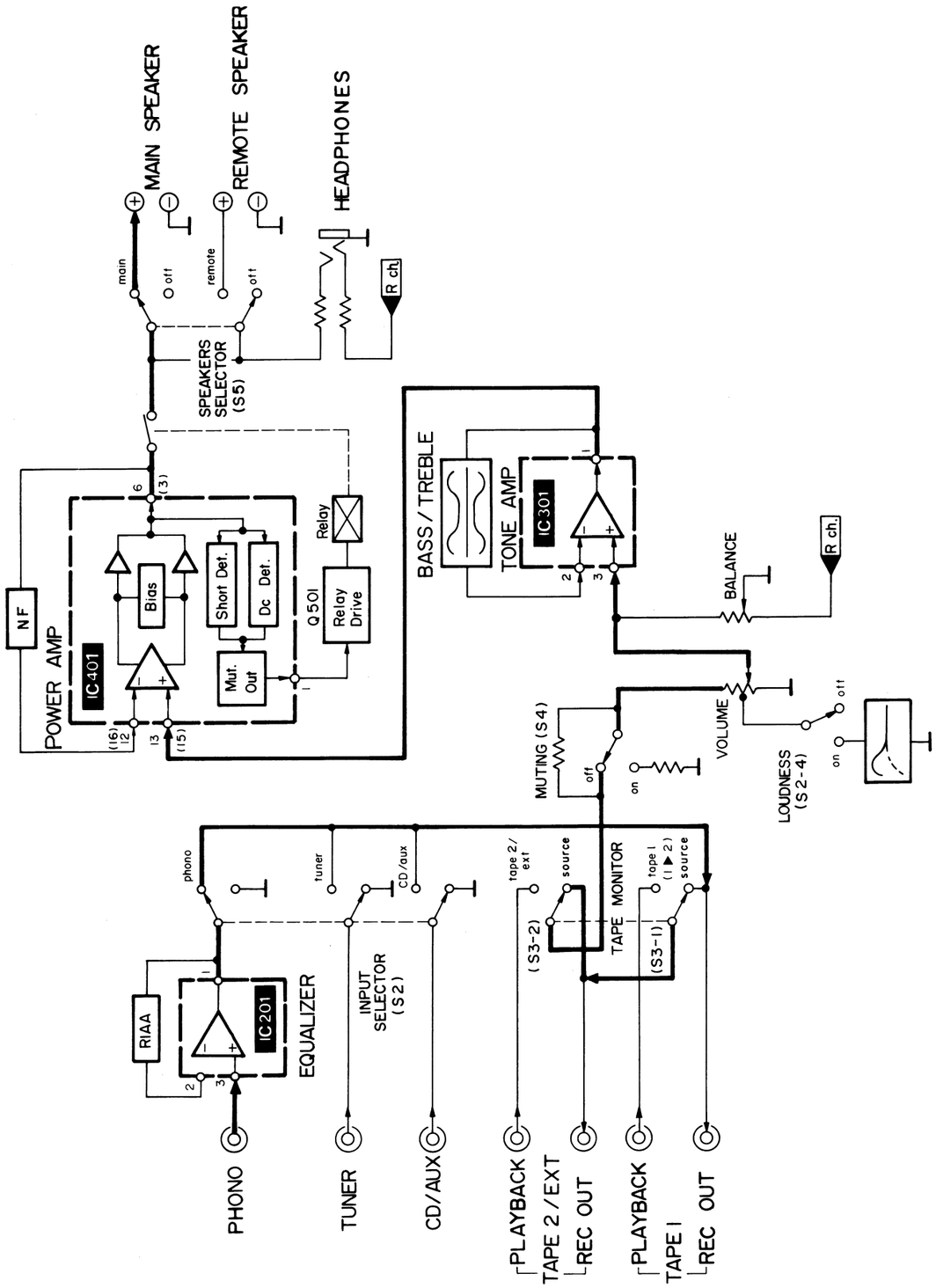
| Ref.No. | Part No. | Value |
|---|---|---|
| R101,102 [EG only] | ERDS2TJ471 | 470 |
| R103,104 [EG only] | ERDS2TJ471 | 470 |
| R105,106 [EG only] | ERDS2TJ471 | 470 |
| R107,108 [EG only] | ERDS2TJ471 | 470 |
| R109,110 [EG only] | ERDS2TJ471 | 470 |
| R201,202 | ERDS2TJ391 | 390 |
| R203,204 | ERDS2TJ224 | 220K |
| R205,206 | ERDS2TJ563 | 56K |
| R207,208 | ERDS2TJ271 | 270 |
| R209,210 | ERDS2TJ184 | 180K |
| R211,212 | ERDS2TJ123 | 12K |
| R213,214 | ERDS2TJ563 | 56K |
| R215,216 | ERDS2TJ561 | 560 |
| R301,302 | ERDS2TJ222 | 2.2K |
| R303,304 | ERDS2TJ123 | 12K |
| R307,308 | ERDS2TJ563 | 56K |
| R309,310 | ERDS2TJ474 | 470K |
| R311,312 | ERDS2TJ474 | 470K |
| R313,314 | ERDS2TJ183 | 18K |
| R315,316 | ERDS2TJ332 | 3.3K |
| R317,318 | ERDS2TJ152 | 1.5K |
| R319,320 | ERDS2TJ681 | 680 |
| R321,322 | ERDS2TJ223 | 22K |
| R323,324 | ERDS2TJ682 | 6.8K |
| R325,326 | ERDS2TJ392 | 3.9K |
| R327,328 | ERDS2TJ223 | 22K |
| R329,330 | ERDS2TJ332 | 3.3K |
| R401,402 | ERDS2TJ222 | 2.2K |
| R403,404 | ERDS2TJ393 | 39K |
| R405,406 | ERDS2TJ272 | 2.7K |
| R407,408 | ERDS2TJ393 | 39K |
| R409,410 ⚠ | ERDS1FJ4R7 | 4.7 |
| R411,412 | ERDS2TJ470 | 47 |
| R413,414 | ERG2ANJ331 | 330 |
| R415,416 | ERDS2TJ561 | 560 |
| R501 | ERDS2TJ223 | 22K |
| R502 | ERG2ANJ271 | 270 |
| R503 | ERDS2TJ473 | 47K |
| R504 | ERDS2TJ684 | 680K |
| R505 | ERDS2TJ154 | 150K |
| R506 | ERG2ANJ271 | 270 |
| R601 | ERDS2TJ561 | 560 |
| R602 | ERDS2TJ391 | 390 |
| R801 | ERDS2TJ561 | 560 |
| R802 | ERDS2TJ471 | 470 |
| R901 | ERG2ANJ681 | 680 |
| R902 | ERG2ANJ561 | 560 |
| R903 | ERG2ANJ681 | 680 |
| R904 | ERG2ANJ561 | 560 |

## • Capacitor

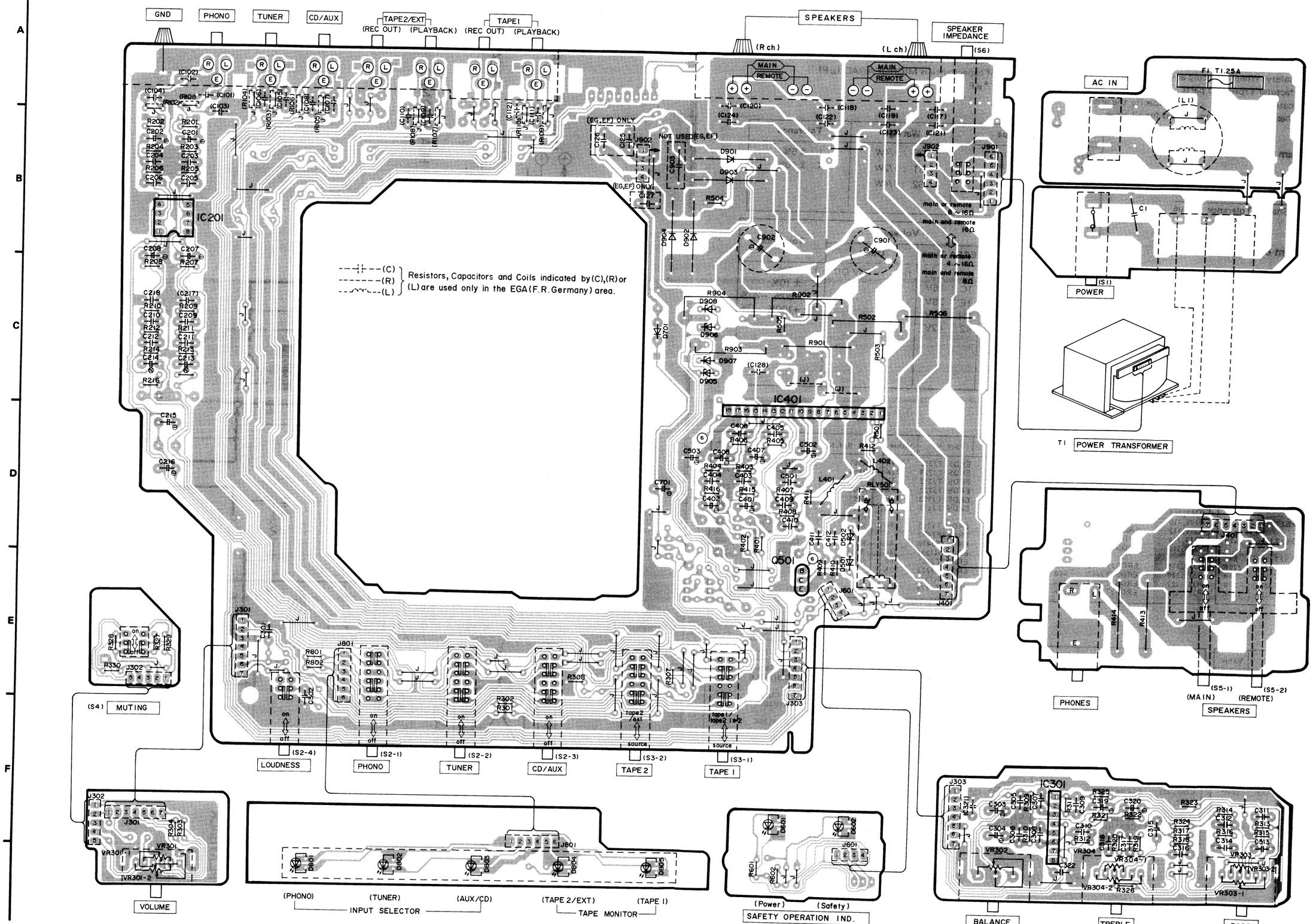
| Ref.No. | Part No. | Value |
|---|---|---|
| C1 ⚠ | ECKDKC103PF2 | 0.01 |
| C101,102 [EG only] | ECCD1H180K | 18P |
| C103,104 [EG only] | ECCD1H151K | 150P |
| C105,106 [EG only] | ECCD1H151K | 150P |
| C107,108 [EG only] | ECCD1H151K | 150P |
| C109,110 [EG only] | ECCD1H151K | 150P |
| C111,C112 [EG only] | ECCD1H151K | 150P |
| C117,118 [EG only] | ECKD1H271KB | 270P |
| C119,120 [EG only] | ECKD1H271KB | 270P |
| C121,122 [EG only] | ECKD1H223ZF | 0.022 |
| C123,124 [EG only] | ECKD1H223ZF | 0.022 |
| C125,126 [EG,EF only] | ECAE1104KN | 0.1 |
| C127 [EG,EF only] | ECKD1H103ZF | 0.01 |
| C128 | ECKD1H103ZF | 0.01 |
| C201,202 | ECEA1EU3R3 | 3.3 |
| C203,204 | ECCD1H101K | 100P |
| C205,206 [EG only] | ECKD1H102KB | 0.001 |
| C205,206 [other] | ECKD1H471KB | 470P |
| C207,208 | ECEA0JU330 | 33 |
| C209,210 | ECFTD223KXL | 0.022 |
| C211,212 | ECFTD682KXL | 0.0068 |
| C213,214 N | ECEA1HN010S | 1 |
| C215,216 | ECEA1CU101 | 100 |
| C217 [EG only] | ECKD1H103ZF | 0.01 |
| C218 | ECKD1H103ZF | 0.01 |
| C301,302 | ECFTD333KXL | 0.033 |
| C303,304 | ECEA1EU3R3 | 3.3 |
| C305,306 | ECCD1H101K | 100P |
| C307,308 | ECKD1H331KB | 330P |
| C309,310 | ECCD1H270K | 27P |
| C311,312 | ECFTD123KXL | 0.012 |
| C313,314 | ECFTD683KXL | 0.068 |
| C315,316 | ECFTD562KXL | 0.0056 |
| C317,318 | ECFTD273KXL | 0.027 |
| C319,320 | ECEA1CU100 | 10 |
| C321 [EG only] | ECKD1H103ZF | 0.01 |
| C322 | ECKD1H103ZF | 0.01 |
| C401,402 | ECEA1EU3R3 | 3.3 |
| C403,404 | ECKD1H391KB | 390P |
| C405,406 | ECKD1H102KB | 0.001 |
| C407,408 | ECEA1CU220 | 22 |
| C409,410 [EG only] | ECCD1H100K | 10P |
| C409,410 [other] | ECCD1H120K | 12P |
| C411,412 | ECKD1H473ZF | 0.047 |
| C501 | ECKD1H473ZF | 0.047 |
| C502 | ECEA0JU330 | 33 |
| C503 | ECEA0JU331 | 330 |
| C701 | ECEA1CU471 | 470 |
| C901,902 | ECES1JU682U | 6800 |
| C903 | ECKD2H103PE | 0.01 |

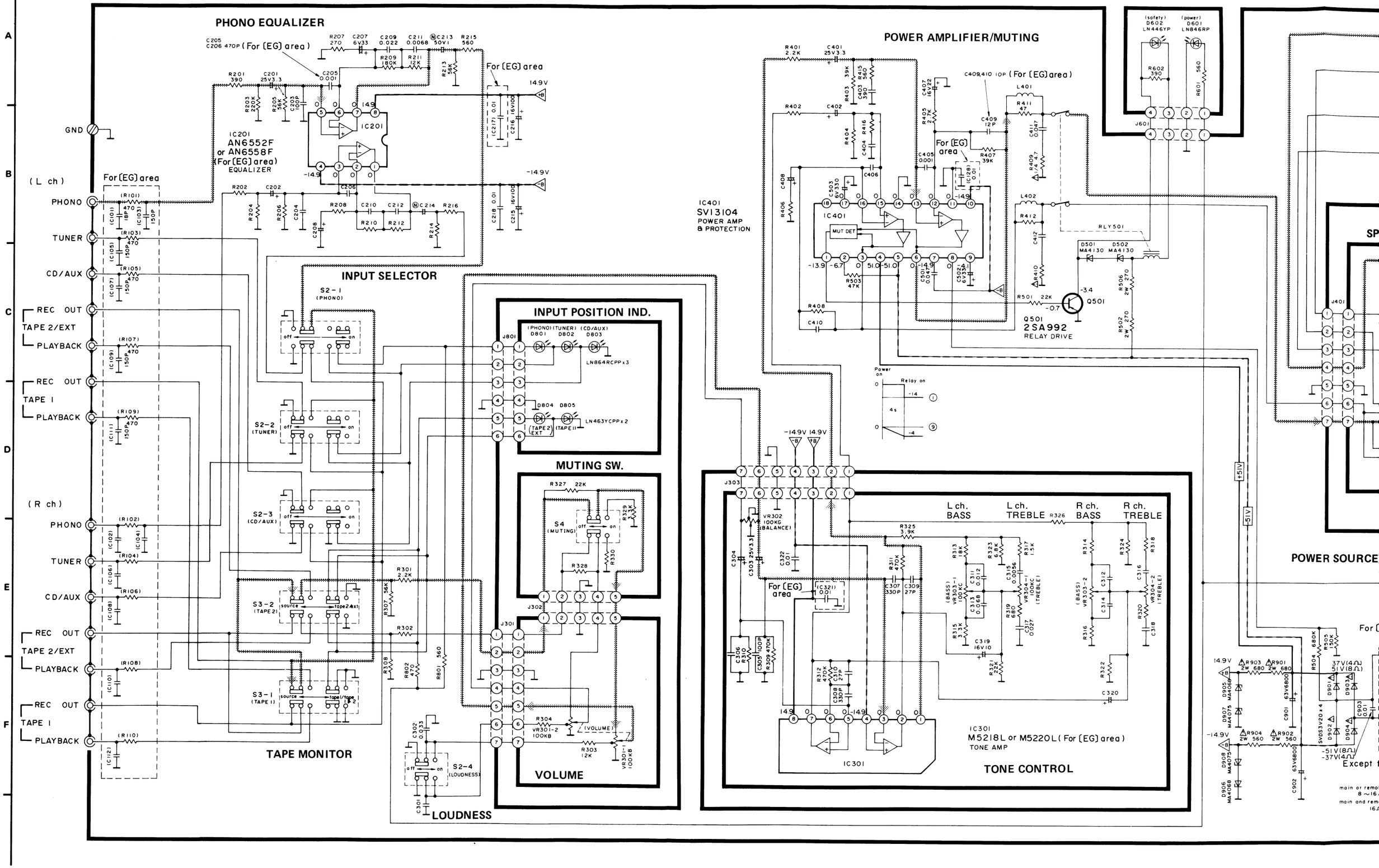


# ■ BLOCK DIAGRAM



# ■ PRINTED CIRCUIT BOARDS



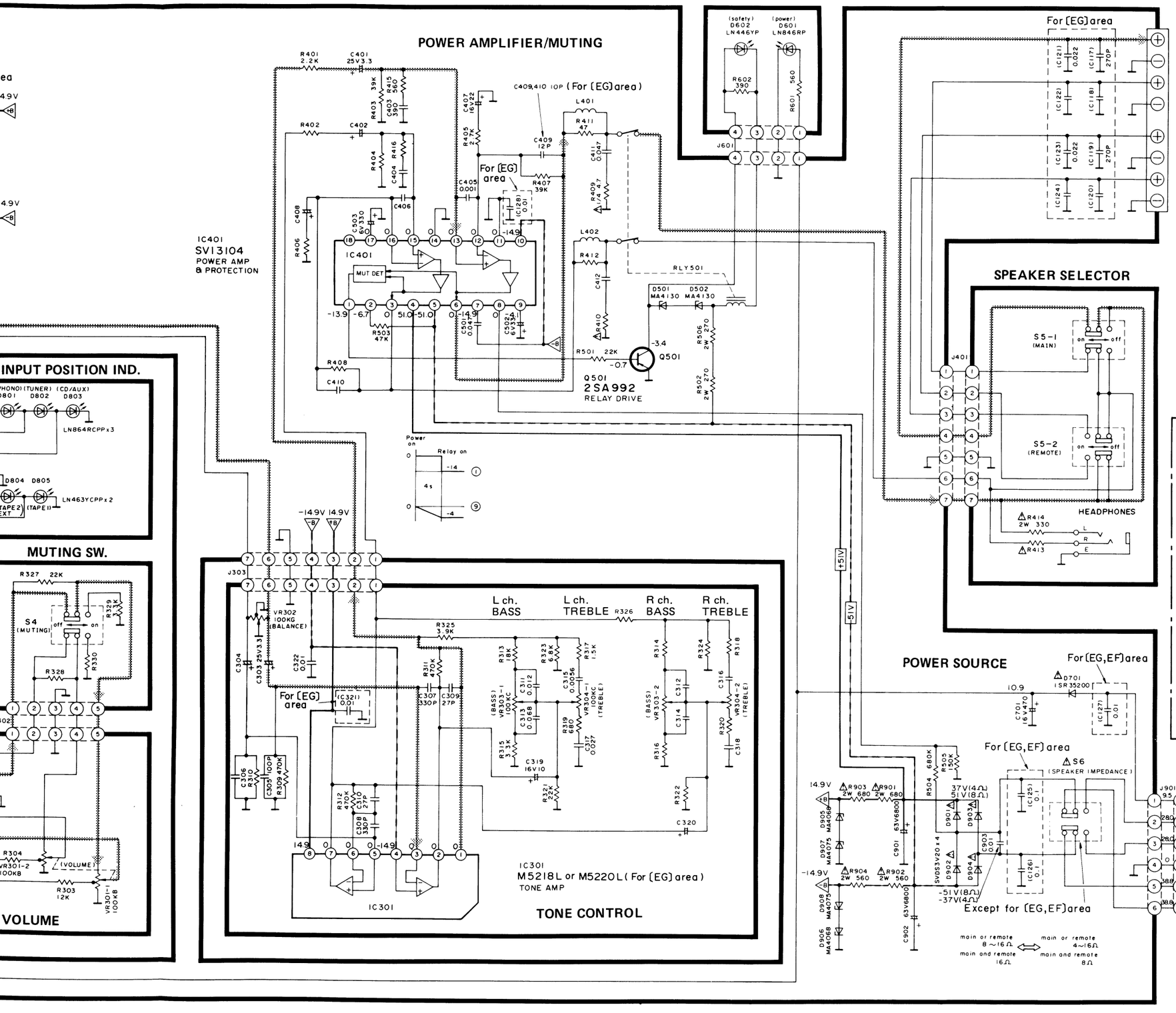

PHONO EQUALIZER
IC201
AN6552F
or AN6558F
(For [EG] area)
EQUALIZER
For [EG] area
( L ch )
( R ch )
PHONO
TUNER
CD/AUX
REC OUT
TAPE 2/EXT
PLAYBACK
REC OUT
TAPE 1
PLAYBACK
GND
INPUT SELECTOR
S2-1 (PHONO)
S2-2 (TUNER)
S2-3 (CD/AUX)
S3-2 (TAPE 2)
S3-1 (TAPE 1)
S2-4 (LOUDNESS)
TAPE MONITOR
INPUT POSITION IND.
LN864RCPP x3
LN463YCPP x2
MUTING SW.
S4 (MUTING)
VOLUME
LOUDNESS
POWER AMPLIFIER/MUTING
IC401
SVI3104
POWER AMP & PROTECTION
MUT DET
Q501
2SA992
RELAY DRIVE
RLY501
Power on
Relay on
4s
TONE CONTROL
IC301
M5218L or M5220L ( For [EG] area )
TONE AMP
L ch. BASS
L ch. TREBLE
R ch. BASS
R ch. TREBLE
VR302 100KG (BALANCE)
POWER SOURCE
+51V
-51V
14.9V
-14.9V
Except f

# ■ SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

**Notes:**

1. **S1** : Power switch in **"on"** position. ( ■ off, ▬ on)
2. **S2-1 ~ S2-3** : Input selector switch in **"phono"** position.
   S2-1: phono S2-2: tuner S2-3: CD/AUX
3. **S2-4** : Loudness switch in **"off"** position. ( ■ off, ▬ on)
4. **S3-1 ~ S3-2** : Tape monitor switch in **"source"** position.
   S3-1 : ( ■ source, ▬ tape 1/tape 1▶ 2)
   S3-2 : ( ■ source, ▬ tape 2/ext)
5. **S4** : Muting switch in **"off"** position. ( ■ off, ▬ on)
6. **S5-1** : Main speaker switch in **"on"** position. ( ■ off, ▬ on)
7. **S5-2** : Remote speaker switch **"off"** position. ( ■ off, ▬ on)
8. **S6** : Impedance selector switch in **"8 ~ 16 Ω"** position.
   ( ■ 8 ~ 16Ω, ▬ 4 ~ 6Ω)
9. **S7 (For [XA] area only)** : Voltage selector in **"220V"** position.
   (127V ↔ 110V ↔ 220V ↔ 240V)
10. Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
11. Phono signal (Lch)
    Positive voltage lines
    Negative voltage lines
12. Important safety notice:
    Components identified by △ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.



# ■ REPLACEMENT PARTS LIST

**Notes:**

1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Ⓚ —marked parts are used for black only, while O —marked parts are for silver type only.
4. Part other than Ⓚ — and O —marked are used for both black and silver type.
5. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
6. The parenthesized numbers in the column of description stand for the quantity per set.

| Area |
|---|
| [E] .... Continental Europe |
| [EG] ... F.R. Germany |
| [EK] ... United Kingdom |
| [EF] ... France |
| [EH] ... Holland |
| [EB] ... Belgium |
| [Ei] ... Italy |
| [XL] ... Australia |
| [XA] ... Asia, Latin America, Africa, Middle Near East and Oceania |

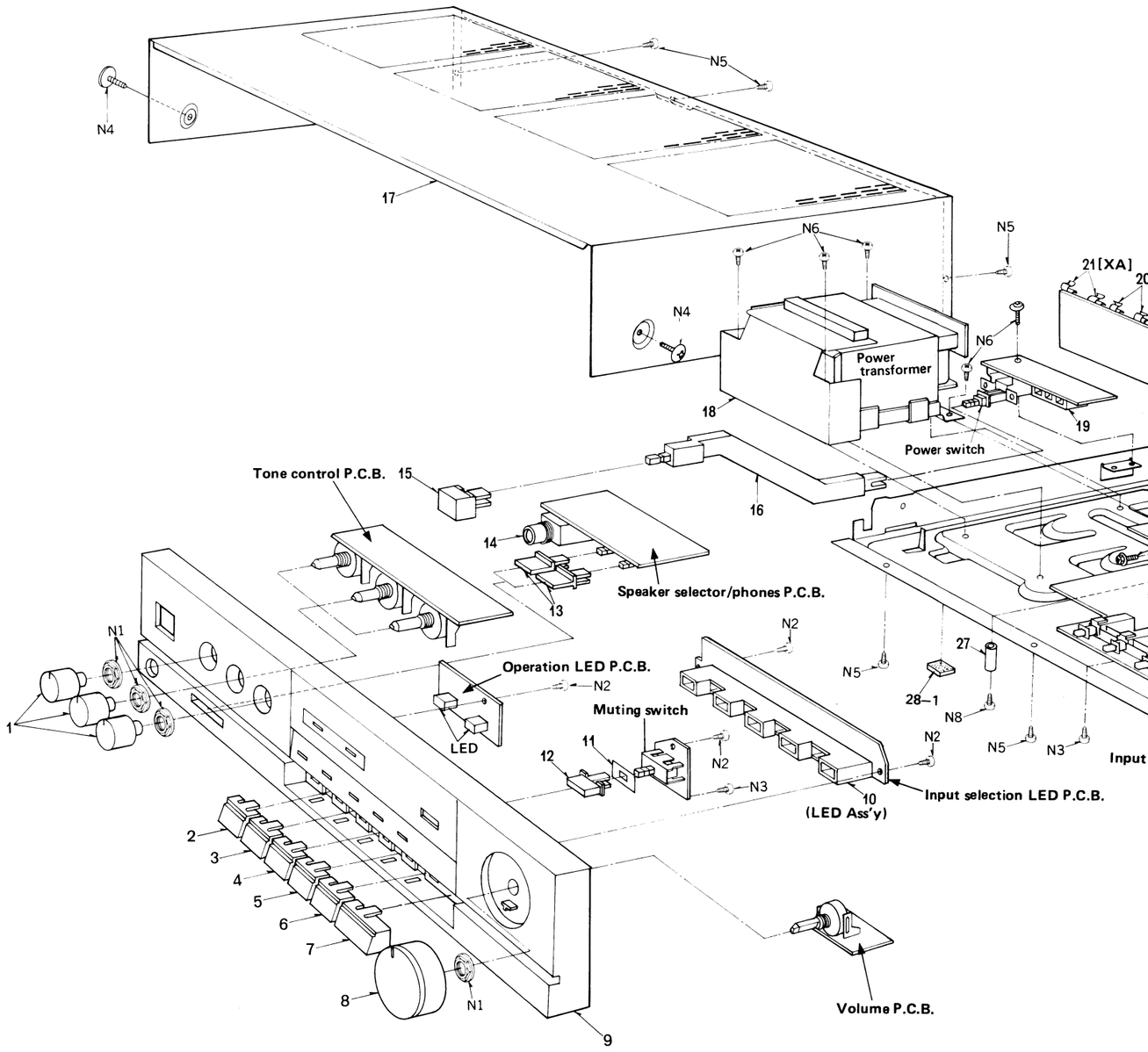
| Ref.No. | | Part No. | Description |
|---|---|---|---|
| **INTEGRATED CIRCUITS** | | | |
| IC201[EG] | | AN6558F | IC, Equalizer |
| IC201[other] | | AN6552F | IC, Equalizer |
| IC301[EG] | | M5220L | IC, Tone Amp. |
| IC301[other] | | M5218L | IC, Tone Amp. |
| IC401 | | SVI3104 | IC, Power |
| **TRANSISTORS** | | | |
| Q501 | | 2SA992E | Relay Drive |
| **DIODES** | | | |
| D501,502 | | MA4130M | Diode |
| D601 | | LN846RP | L.E.D |
| D602 | | LN446YP | L.E.D |
| D701 | | 1SR35200 | Diode |
| D801~803 | | LN863RCPP | L.E.D |
| D804,805 | | LN463YCPP | L.E.D |
| D901~904 | ⚠ | SVDS3V40 | Diode |
| D905,906 | | MA4068M | Diode |
| D907,908 | | MA4075M | Diode |
| **COILS** | | | |
| L1[EG] | ⚠ | SLQZ650MH49 | Coil |
| L401,402 | | SLQY07G-40 | Coil |
| **TRANSFORMERS** | | | |
| T1[XA] | ⚠ | SLT5U64 | Power |
| T1[EK,XL] | ⚠ | SLT5U63 | Power |
| T1[other] | ⚠ | SLT5U62 | Power |
| **VARIABLE RESISTORS** | | | |
| VR301 | | EWCXUAF20B15 | Volume, 100kΩ (B) |
| VR302 | | EWHF5AF20G15 | Balance, 100KΩ (G) |
| VR303,304 | | EWCS6A020C15 | Tone, 100KΩ (C) |
| **FUSES** | | | |
| F1[EK] | ⚠ | XBA2C12TB0 | 250V, T1.25A |
| F1[other] | ⚠ | XBA2C12TR0 | 250V, T1.25A |
| F2[XA] | ⚠ | XBA2C25TR0 | 250V, T2.5A |
| **SWITCHES** | | | |
| S1[XA] | ⚠ | ESB8248V | Power |
| S1[other] | ⚠ | ESB8249V | Power |
| S2, 3 | | SSH659 | Input Selector |
| S4 | | SSH1198 | Muting |
| S5 | | SSH2122 | Speaker Selector |
| S6 | ⚠ | SSH1193—1 | Speaker Impedance Selector |
| S7[XA] | ⚠ | ESE37263 | Voltage Selector |
| **RELAY** | | | |
| RLY501 | | SSY129 | Relay |

| Ref.No. | | Part No. | Description | |
|---|---|---|---|---|
| **CABINET AND CHASSIS** | | | | |
| 1 | O | SBN1032-2 | Knob, Tone | (3) |
| 1 | Ⓚ | SBN1032-4 | Knob, Tone | (3) |
| 2 | O | SBC839-1E | Button, Tape 1 | (1) |
| 2 | Ⓚ | SBC839E | Button, Tape 1 | (1) |
| 3 | O | SBC839-1D | Button, Tape 2 | (1) |
| 3 | Ⓚ | SBC839D | Button, Tape 2 | (1) |
| 4 | O | SBC839-1C | Button, CD/AUX | (1) |
| 4 | Ⓚ | SBC839-C | Button, CD/AUX | (1) |
| 5 | O | SBC839-1B | Button, Tuner | (1) |
| 5 | Ⓚ | SBC839B | Button, Tuner | (1) |
| 6 | O | SBC839-1A | Button, Phono | (1) |
| 6 | Ⓚ | SBC839A | Button, Phono | (1) |
| 7 | O | SBC840-1A | Button, Loudness | (1) |
| 7 | Ⓚ | SBC840A | Button, Loudness | (1) |
| 8 | O | SBN1125 | Knob, Volume | (1) |
| 8 | Ⓚ | SBN1125-2 | Knob, Volume | (1) |
| 9 | O | SYYU700SE | Front Panel Ass'y | (1) |
| 9 | Ⓚ | SYYU700KE | Front Panel Ass'y | (1) |
| 10 | | LN051330P | LED Ass'y | (1) |
| 11 | | SHW54C50-1 | Spacer | (1) |
| 12 | O | SBC439 | Button, Muting | (1) |
| 12 | Ⓚ | SBC439-2 | Button, Muting | (1) |
| 13 | O | SBC315-4T | Button, Speaker | (2) |
| 13 | Ⓚ | SBC315-7 | Button, Speaker | (2) |
| 14 | | SJJ134B | Headphone Jack | (1) |
| 15 | O | SBC666 | Button, Power Switch | (1) |
| 15 | Ⓚ | SBC666-4 | Button, Power Switch | (1) |
| 16 | | SUB257 | Connection Rod, Power Switch | (1) |
| 17[EK] | O | SKCU700-SK | Cabinet | (1) |
| 17[other] | O | SKC1550S1 | Cabinet | (1) |
| 17[EK] | Ⓚ | SKCU700-KK | Cabinet | (1) |
| 17[other] | Ⓚ | SKC1550BB1 | Cabinet | (1) |
| 18 | | SMCU700-KM | Shield Cover | (1) |
| 19[XA] | | SJS702 | Socket, 7Pin | (1) |
| 19[other] | | SJS305 | Socket, 3Pin | (1) |
| 20 | | SJT388 | Fuse Holder | (2) |
| 21[XA] | | SJT388 | Fuse Holder | (2) |
| 22[XL] | ⚠ | SJS9234B | AC Inlet | (1) |
| 22[other] | ⚠ | SJS9231B | AC Inlet | (1) |
| 23[XA] | ⚠ | SJS9232B | AC Outlet | (2) |
| 24[XA] | | SHW35K150-1 | Spacer | (1) |
| 25 | | SJF4818-1 | Speaker Terminal | (1) |
| 26 | | SBC165 | Button, Impedance Selector | (1) |
| 27 | | SUD472 | PCB Holder | (1) |
| 28 | | SKUU700-KE | Bottom Board | (1) |
| 28-1 | | SKL293 | Foot | (4) |
| 29 | | SJF3062NK1 | Input Terminal | (1) |
| 30[EG] | | SGP6840-2B | Rear Panel | (1) |
| 30[EK] | | SGP6840-2C | Rear Panel | (1) |
| 30[XL] | | SGP6840-2D | Rear Panel | (1) |
| 30[XA] | | SGP6840-3A | Rear Panel | (1) |
| 30[E] | | SGP6840-2A | Rear Panel | (1) |
| 30[other] | | SGPU700-KF | Rear Panel | (1) |
| 31[XA] | | SJS9232A | AC Outlet Cover | (2) |
| 32[XL] | | SJS9234A | AC Inlet Cover | (1) |
| 32[other] | | SJS9231A | AC Inlet Cover | (1) |
| 33 | | SMX879 | Insulation Cover | (1) |
| 34[XA] | | SMX884 | Insulation Cover | (1) |
| 35 | | SHR301 | Cord Clamper | (1) |
| 36 | | SJT30643-V | Socket, 6Pin | (2) |
| 36 | | SJT30743-V | Socket, 7Pin | (1) |

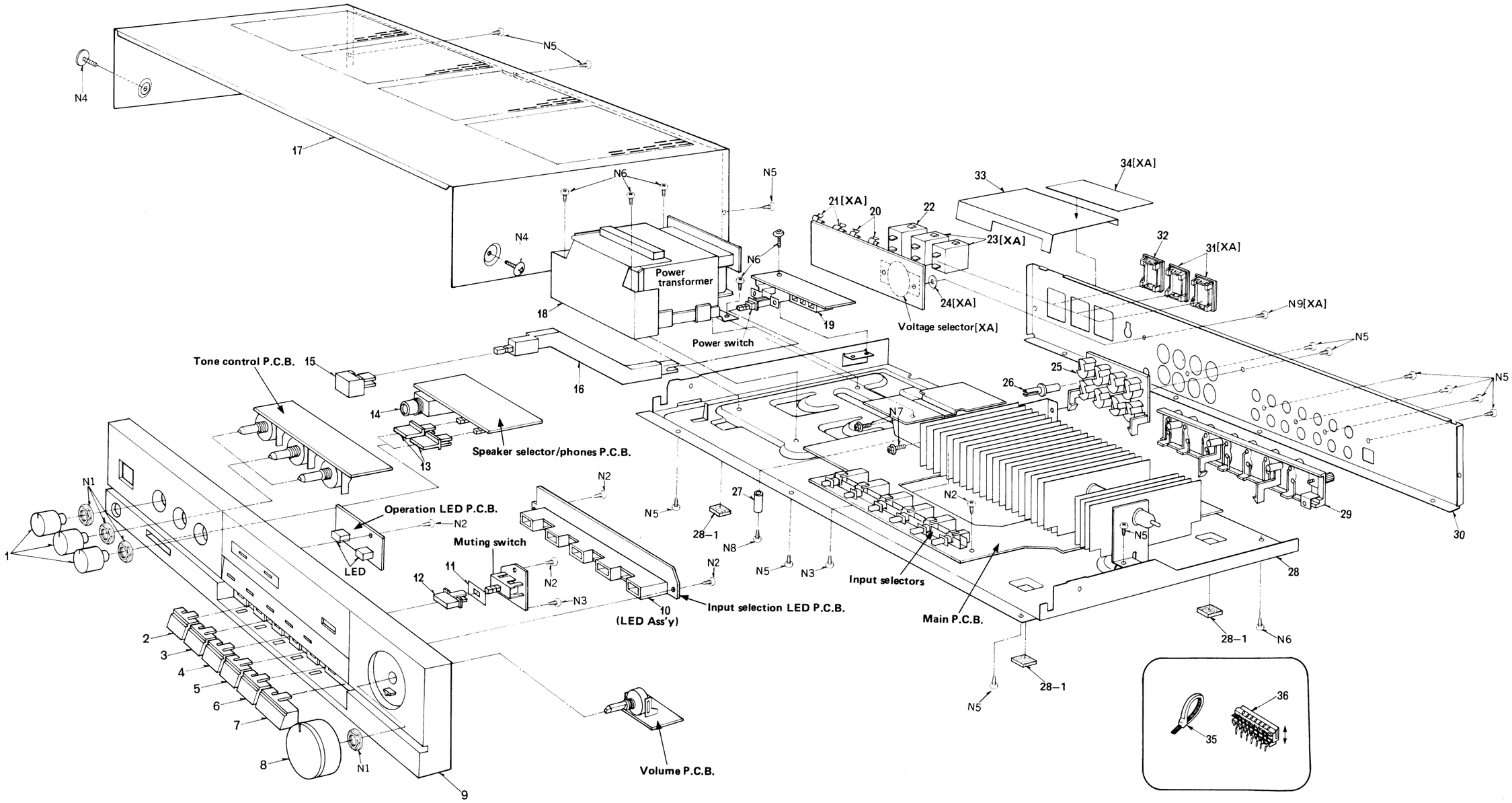
| Ref.No. | | Part No. | Descripton | |
|---|---|---|---|---|
| **SCREWS** | | | | |
| N1 | | SNE4021 | Nut | (4) |
| N2 | | XTB3+8G | Tapping, + 3x8 | (5) |
| N3 | | XTW3+8T | Tapping, + 3x8 | (2) |
| N4 | O | SNE2095-4 | Cabinet | (2) |
| N4 | Ⓚ | SNE2095-5 | Cabinet | (2) |
| N5 | | XTBS3+8JFZ1 | Tapping, + 3x8 | (12) |
| N6 | | XTB3+6FFZ | Tapping, + 3x6 | (9) |
| N7 | | SNE2118 | Power IC | (2) |
| N8 | | XTB3+16J | Tapping, + 3x16 | (1) |
| N9[XA] | | SNE2095-5 | Voltage Selector | (1) |
| **ACCESSORIES** | | | | |
| A1[EK] | ⚠ | SFDAC05G02 | AC Cord | (1) |
| A1[XL] | ⚠ | SJA173 | AC Cord | (1) |
| A1[XA] | ⚠ | SJA168-1 | AC Cord | (1) |
| A1[other] | ⚠ | SJA171 | AC Cord | (1) |
| A2[XA] | ⚠ | SJP9215 | Plug Adaptor | (1) |
| A3[EG] | | SQF12750 | Instruction Book | (1) |
| A3[EK] | | SQF12751 | Instruction Book | (1) |
| A3[XA] | | SFQ12752 | Instruction Book | (1) |
| A3[other] | | SQF12749 | Instruction Book | (1) |
| **PACKING** | | | | |
| P1[EK] | O | SPG5679 | Carton Box | (1) |
| P1[EK] | Ⓚ | SPG5678 | Carton Box | (1) |
| P1[EF] | | SPG5680 | Carton Box | (1) |
| P1[other] | O | SPG5677 | Carton Box | (1) |
| P1[other] | Ⓚ | SPG5676 | Carton Box | (1) |
| P2 | | SKS4748 | Pad, Left | (1) |
| P3 | | SPS4749 | Pad, Right | (1) |
| P4 | | SPS4141 | Pad, Upper | (1) |
| P5 | O | SPP699 | Polyethylene Bag | (1) |
| P5 | Ⓚ | SPP735 | Polyethylene Bag | (1) |
| P6[EF] | Ⓚ | SGK1413 | Label | (2) |



# ■ EXPLODED VIEW



## ■ EXPLODED VIEW





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